Observations on the Market for Transport PPPs: US and Arizona

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[Date]

Maricopa Association of Governments

RBC Capital Markets

I. US Market Observations

US Market Observations

- **World's largest developing P3 market**

- **Early stage, huge potential**
- **Actually many markets**

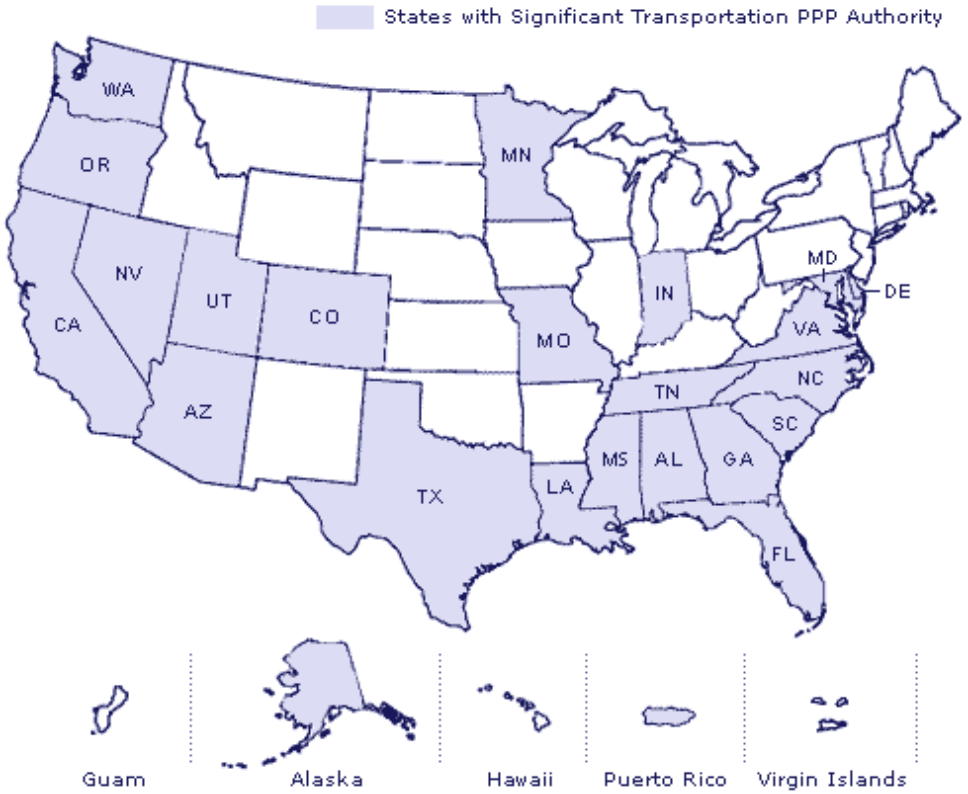
US Market Observations - Year in Review for US PPPs

Selected US PPP activity in 2007 and H1 2008

Toll Roads	▪ **Port of Miami Tunnel** – Greenfield private concession (pending financial close) ▪ **North Texas Tollway Authority – SH 121** – Greenfield public authority concession ▪ **Northwest Parkway** – Brownfield 99 year private concession ▪ **Capital Beltway** – Greenfield 80 year private concession ▪ **Missouri Bridges** – Brownfield 25 year private concession ▪ **Pennsylvania Turnpike** – Preferred bidder named May 19
RFQ's Released	▪ **I-595** ▪ **First Coast Outer Beltway** ▪ **Pennsylvania (Mon Fayette)** ▪ **Southern Connector** ▪ **Georgia and Port of Oakland (advisory)** ▪ **Alligator Alley**

US Market Observations

- World's largest developing P3 market
- **No over-arching PPP program**



Source: Federal Highway Administration, Public-Private Partnerships

- **Almost all activity sponsored at State, Regional, City or other local level**
- **23 States with enabling legislation** *(shaded)*
- **Federal Government support from innovative finance tools:**
  - **Private Activity Bonds**
  - **TIFIA direct loans, loan guarantees, and lines of credit**
  - **SEP 15**
  - **State Infrastructure Banks (SIBs)**
  - **GARVEE Bonds and Transit GANS**

No over-arching PPP Program

- **No "one-size" fits all**
  - **A wide spectrum of P3 sets and sub-sets exist for any prospective transportation project or transaction**

Risk Transfer Option	Repayment Option	Finance Structures
▪ DBT (design-build transfer)	▪ Milestone payments	▪ Private Activity Bonds (PAB)
▪ DB and finance construction	▪ Lump sum on completion	▪ Taxable Bonds
▪ Concession without tolling	▪ Lease payments over time	▪ Bank Debt
▪ Concession with shadow toll	▪ Availability payments	▪ Private Equity
▪ Concession with toll operation	▪ Toll revenue	▪ Public Benefit Corporations / 63/20
▪ Concession collecting tolls	▪ Gate fees	▪ Traditional Municipal Finance
		▪ Innovative Federal Finance
		▪ Program Funding

  - **Benefits of "P3" apply across spectrum, depending on stakeholder goals**

US Market Observations

- World's largest developing P3 market
- No over-arching PPP program
- **P3 interest is driven primarily by fiscal constraints-the nation will need from $185-276 billion a year for highways compared to $68 billion a year currently spent** ***(source: NST Commission Policy and Revenue Study Report Jan. 2008)***

- **Insufficiency of traditional public funding sources**
- **Core public sector objective is new source of funding**
- **Allows for allocation of risk/reward**
- **Follows the historical pattern seen internationally**
- **Local politics differ greatly**
  - **Intricate and highly complex**

US Market Observations

- World's largest developing P3 market
- No over-arching PPP program
- PPP interest is driven primarily by budgetary / fiscal concerns
- **Focus is on transportation given the US transportation system faces a funding crisis**

- **Particularly in the roads sector**
- **Traditional toll roads**
  - **History of tolling in a number of markets**
  - **Gaining wider market acceptance – particularly if new capacity is being provided**
- **Managed Lanes Projects in congested corridors with P3s (IH-635 (Tx), I-20 ML (Ga), I-595 (Fl), SR-91 (Ca)**
- **Some availability payment deals are emerging**
  - **Congestion relief (Miami Port Tunnel) and traffic thru-put I-595 (FDOT)**
  - **Asset refurbishment / maintenance (Missouri Bridges)**

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- **Most active Greenfield markets have been Texas, Virginia and Florida**
- **Moderate Greenfield activity**
  - **Georgia, Oregon, Missouri, California**
- **Several other markets are promising, with early activity - North Carolina, Kentucky**
- **Most projects have long gestation periods 3-4 years**

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- **Significant international interest and participation**

- **European and Australian**
  - **Construction companies**
  - **Operators**
  - **Financial sponsors**
- **Relatively few US construction companies of national scale**
  - **Many with significant order backlogs**
  - **General reluctance to invest equity in project SPVs**
- **In states with large toll authorities, debate over PPPs model vs. public model alternative**
- **Creation of U.S. focused infrastructure equity funds (Goldman, Citi, Macquarie, Carlyle)**

US Market Observations - Greenfields

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- No over-arching PPP program
- PPP interest is driven primarily by budgetary / fiscal concerns
- Focus is on transportation
- A handful of States comprise the majority of current activity
- Significant international interest and participation
- **Bid processes for Greenfield PPPs differ from State-to-State**

- **Generally less coordinated / predictable than in more established PPP markets**
- **Processes:**
  - **Unsolicited offers (with varying mechanisms for competing proposals)**
  - **Solicited offers**
    - **Specific projects**
    - **Framework agreements (CDAs)**
- **Many parties learning**
  - **Longer timelines; delays common**
  - **Some inevitable bidder frustration**
- **Currently Few opportunities for standardization**
- **National debate on P3 contract terms (length, revenue sharing, non-compete)**

Greenfield Case Study: SH 121 – North Texas Tollway Authority

- **NTTA was the first public agency to use the concept of a public toll authority concession.**
- **NTTA "out bid" Cintra/JP Morgan for the SH 121 concession from TxDOT under SB 792 market valuation process**
  - NTTA paid TxDOT $3.197 billion upfront payment in addition to funding the construction of the $698 million project
  - Additional revenue sharing with TxDOT if toll revenue is higher than projected
  - Payments to TxDOT to be invested in regional transportation infrastructure
- **50 year concession for a 25-mile long toll road**
- **RBC supported NTTA's bid with a bank loan sole commitment for $3.5 billion**
- **NTTA "bid" $533 million more than private sector**
- **Multiple funding sources, but with 100% system debt**
  - Tax-exempt bond anticipation notes
  - Tax-exempt toll road revenue bonds
  - Commercial paper program
- **SH 121 in effect becomes financially integrated with the rest of the NTTA system**

NTTA
NORTH TEXAS TOLLWAY AUTHORITY

North Texas Tollway Authority

Closed November 2007

$3,197,000,000 Upfront
$698,000,000 Construction
SH 121"Public Sector Alternative"

RBC Capital Markets

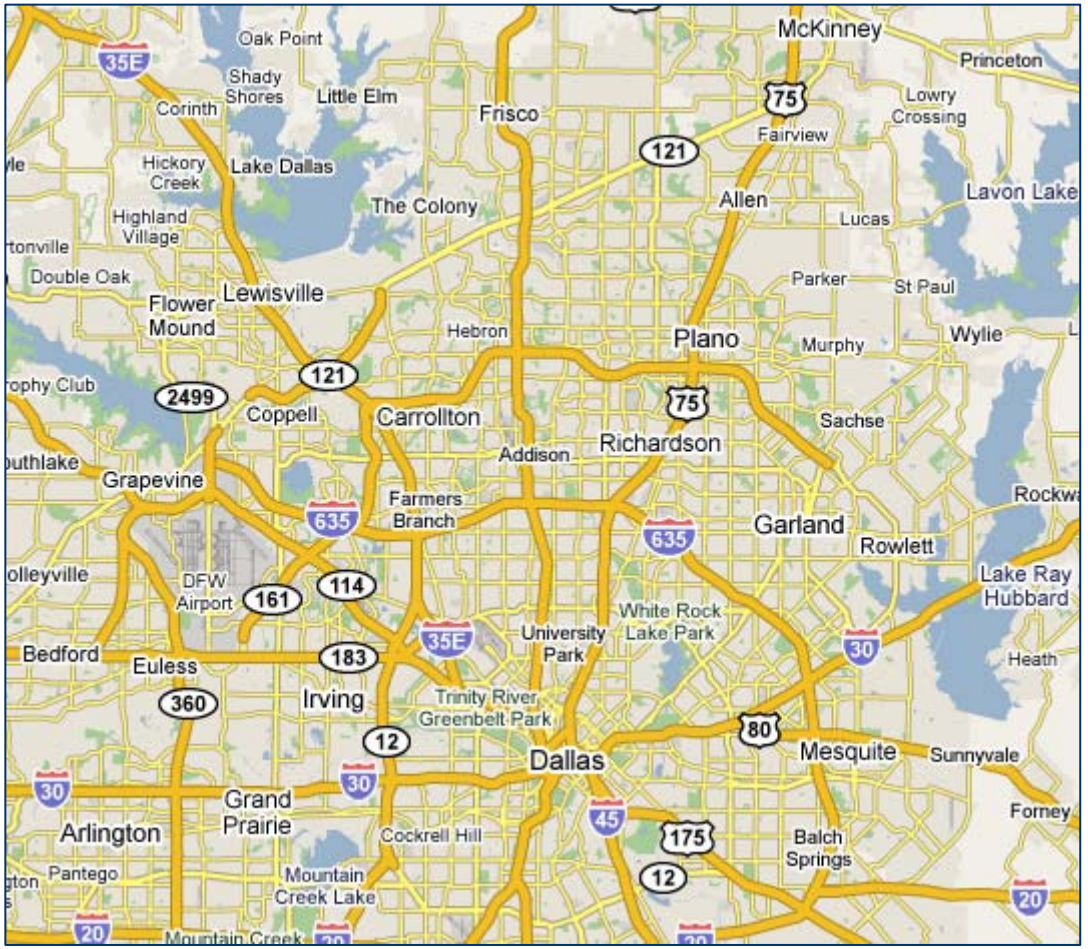
Financial Advisor to NTTA

RBC's P3 Financial Advisory Role

- Completed a plan of finance for the Authority that became the basis for the Concession proposal and financing
- Led the negotiating team and formulated bidding strategy with NTTA
- Developed concession financial model and data book
- Found solutions for issues with FHWA with respect to fair competition practices in the procurement process
- Served with NTTA counsel in negotiating project agreement with TxDOT
- Successfully led rating agency strategy that resulted in nominal changes of NTTA's bond ratings, remaining in the "A" category

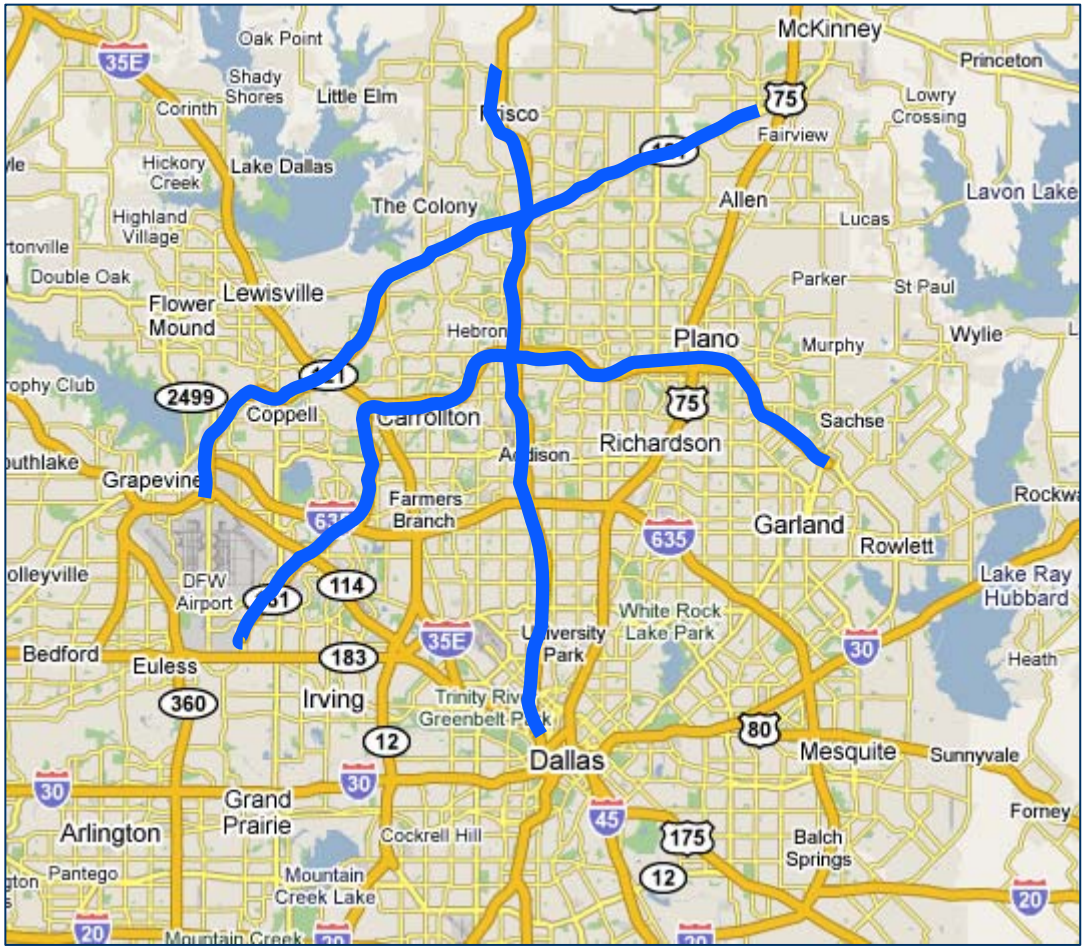
NTTA – Tolled and Free Alternatives

- **North Dallas roadway systems**



NTTA – Tolled and Free Alternatives

- NTTA toll road system provides additional highway capacity to the Dallas - Ft. Worth metroplex
- NTTA roads provide significant congestion relief to the free alternatives
- Significantly, NTTA is moving from cost recovery to value priced tolls



II. Arizona Overview

Arizona – Explosive Population Growth

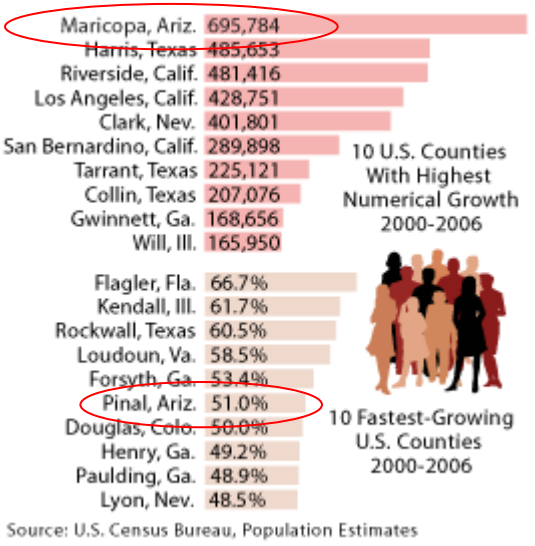
- **Since 2000, Arizona has been the fastest growing state in the US increasing by 20% through 2006. Similarly, over the same period, Maricopa County has had the highest numerical growth rate of any county in the nation**
- **US Census projections rank Arizona as 10th most populous state by 2030, a 109% increase over its 2000 population**

Arizona Historic Population Trend (2000 – 2006)	
Growth Rate Rank	1
Population (as of July 1) 2006	6,166,318
Population 2000	5,130,632
2000- 2006 Population Change	1,035,386
% Change 2000- 2006	20.2%
2005 – 2006 Change	213,311
% Change 2005 – 2006	3.6%
Population Rank	16

Source: US Census Bureau

Census 2000			2030 projections			Change: 2000 to 2030			
State	Population	Rank	State	Population	Rank	State	Number	Percent	Rank % change
United States	**281,421,906**	(x)	**United States**	**363,584,435**	(x)	**United States**	**82,162,529**	**29.2**	(x)
California	33,871,648	1	California	46,444,861	1	Nevada	2,283,845	114.3	1
Texas	20,851,820	2	Texas	33,317,744	2	Arizona	5,581,765	108.8	2
New York	18,976,457	3	Florida	28,685,769	3	Florida	12,703,391	79.5	3
Florida	15,982,378	4	New York	19,477,429	4	Texas	12,465,924	59.8	4
Illinois	12,419,293	5	Illinois	13,432,892	5	Utah	1,252,198	56.1	5
Pennsylvania	12,281,054	6	Pennsylvania	12,768,184	6	Idaho	675,671	52.2	6
Ohio	11,353,140	7	North Carolina	12,227,739	7	North Carolina	4,178,426	51.9	7
Michigan	9,938,444	8	Georgia	12,017,838	8	Georgia	3,831,385	46.8	8
New Jersey	8,414,350	9	Ohio	11,550,528	9	Washington	2,730,680	46.3	9
Georgia	8,186,453	10	Arizona	10,712,397	10	Oregon	1,412,519	41.3	10
North Carolina	8,049,313	11	Michigan	10,694,172	11	Virginia	2,746,504	38.8	11
Virginia	7,078,515	12	Virginia	9,825,019	12	Alaska	240,742	38.4	12
Massachusetts	6,349,097	13	New Jersey	9,802,440	13	California	12,573,213	37.1	13
Indiana	6,080,485	14	Washington	8,624,801	14	Colorado	1,491,096	34.7	14
Washington	5,894,121	15	Tennessee	7,380,634	15	New Hampshire	410,685	33.2	15
Tennessee	5,689,283	16	Maryland	7,022,251	16	Maryland	1,725,765	32.6	16
Missouri	5,595,211	17	Massachusetts	7,012,009	17	Tennessee	1,691,351	29.7	17
Wisconsin	5,363,675	18	Indiana	6,810,108	18	Delaware	229,058	29.2	18
Maryland	5,296,486	19	Missouri	6,430,173	19	South Carolina	1,136,557	28.3	19
Arizona	5,130,632	20	Minnesota	6,306,130	20	Minnesota	1,386,651	28.2	20
Minnesota	4,919,479	21	Wisconsin	6,150,764	21	Arkansas	566,808	21.2	21

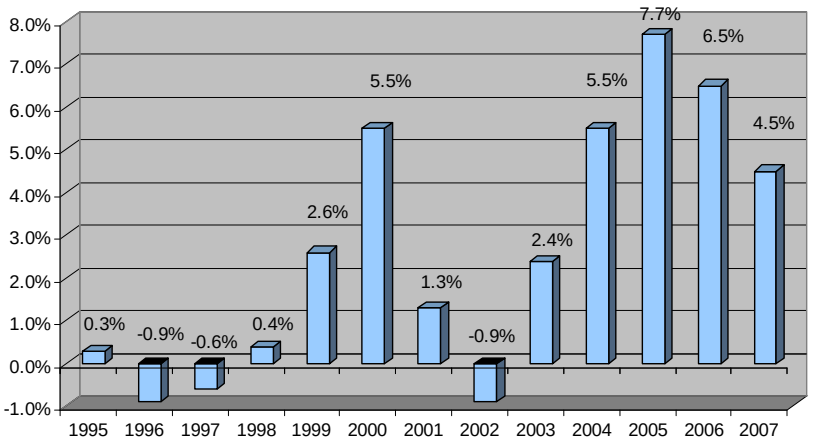
Source: US Census Bureau



Fuel Taxes, Federal and State Funds Insufficient to Keep Up with Needs

- **Since 2003, highway construction materials, labor and overheads have increased by over 26%**
- **Arizona has an 18¢/gallon fuel tax. Fuel taxes do not generate anywhere near enough funds to meet the needs. With new more fuel efficient vehicles and hybrid vehicles becoming more mainstream, federal and state fuel tax revenues will not keep pace with construction inflation. This is further exacerbated by current downward economic pressures on fuel consumption.**
- **Between 2004 & 2005 Arizona switched from an net recipient of highway trust funds to a net donor. Since then its ratio of payments into/apportionments from the highway trust fund has further decreased**

Highway Construction Costs % Change 1995 - 2007



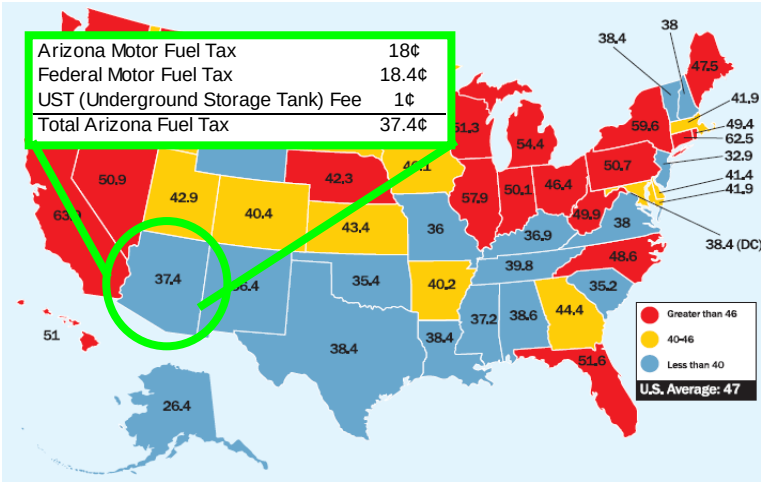
Source: Bureau of Labor Statistics. PPI for Highway and Street Construction

Arizona Highway Federal Aid Apportionments and Allocations - Federal Highway Trust Fund

	Payments Into Fund				Apportionments and Allocations from the Fund				Ratio of Apportionments and Allocations to	
	For Fiscal Year	% of Total	Cummulated Since 7/1/56	% of Total	For Fiscal Year	% of Total	Cummulated Since 7/1/56	% of Total	For Fiscal Year	Cummulated Since 7/1/56
FY 2004	589,647	1.98	8,752,316	1.61	606,865	1.75	9,328,997	1.56	1.03	1.07
FY 2005	677,256	2.58	9,429,572	1.64	646,849	1.71	9,975,846	1.57	0.96	1.06
FY 2006	707,955	2.10	10,137,527	1.67	644,309	1.69	10,620,155	1.57	0.91	1.05

Source: FHWA Highway Statistics – Tables FE-221

Total Fuel Tax by State



Source: Energy API

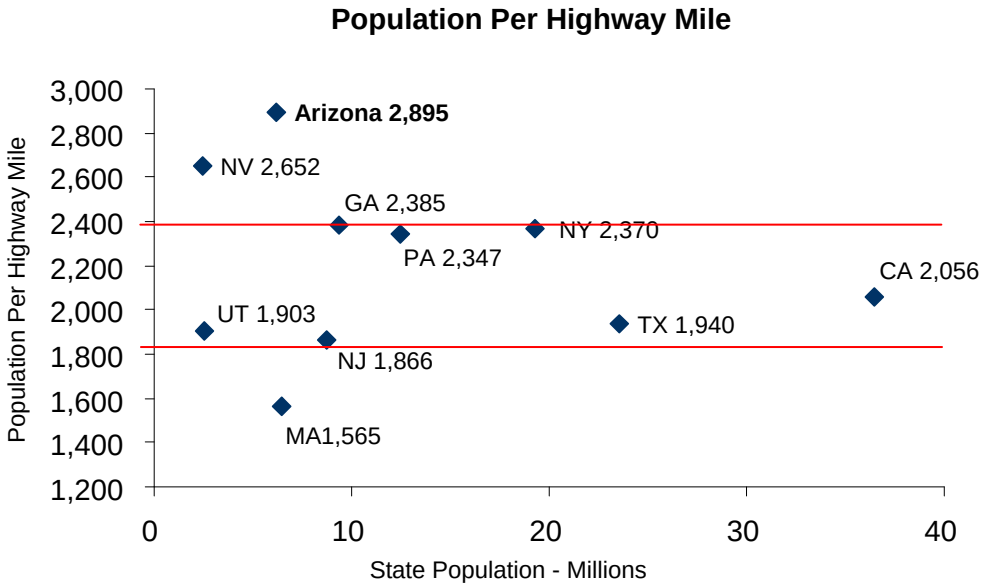
Highway Miles

- With a population of just over 6 million and approx. 2,100 highway miles, Arizona has approx. 2,895 residents per mile of highway
- Due to Arizona's remarkable population growth rate the current highway system will face increased stress and require significant investment in additional capacity to maintain current levels of service
- However, Arizona is falling behind other states in terms of its population and total highway miles in the state
- Proposed 1¢ sales tax ballot measure recognizes the need for catch-up and moving beyond fuel taxes

State	Population[1]	Highway/Interstate Miles[2]	Population per Mile
Arizona	6,166,318	2,130	2,895
Nevada	2,495,529	941	2,652
Georgia	9,363,941	3,927	2,385
New York	19,306,183	8,146	2,370
Pennsylvania	12,440,621	5,300	2,347
California	36,457,549	17,730	2,056
Texas	23,507,783	12,119	1,940
Utah	2,550,063	1,340	1,903
New Jersey	8,724,560	4,676	1,866
Massachusetts	6,437,193	4,112	1,565

1- Population as of July 1, 2006

2- Functional system for interstate, other freeways and expressways as of 2006



III. Conclusion

PPP Benefits

Primary Benefits – "Value for Money"

- Innovation for optimization – in structure, delivery and service
- Optimal risk allocation
- Improvements in the delivery of Construction On-Time/On-Budget
- High quality service performance – "customer-service" mentality
- Operational efficiency, lifecycle maintenance, cost control

Wider Benefits – Broader Effects

- Widening field of specialized contractors, operators, concessionaires
- Increased competition leading to higher standards, best practice
- Innovative approaches to public toll road model (such as NTTA)
- Broadening investor base for necessary projects; debt and equity

Public Interest Protected

- Appropriately structured PPPs are largely products of risk allocation
- Economic benefit to public contractually defined
- Contract safeguards ensure continuing interest of all parties
- Best outcome is a balanced partnership of good service and good will

Conclusions

 # 1 **Market is still in early stage of development**

 # 1 **Multiple permutations: No “one” right answer**

 # 1 **Benefits pertain to all PPP models**

 # 1 **Only WRONG answer is to close off any option pre-maturely**